Please amend the claims as follows:

- 1. (Claims 1-9 are cancelled.)
- 10. (Currently amended) An unnecessary word determination method in a document automatic classification system, comprising the steps of:

generating a word list for each of at least two categories by extracting words from a learning document set, the word list containing information on a frequency of appearance of each extracted word within each category;

determining an unnecessary word for a <u>first</u> category on the basis of the <u>relative</u> number of occurrences of <u>a given</u> the word within at least one other category wherein a word is determined to be unnecessary <u>in the first category</u> in response to the word having a <u>lesser greater</u> number of occurrences than a given standard in the at least one other category, the given standard <u>defined irrespective of the number of occurrences of the word in the first category</u> comprised of a predetermined threshold scaled by the number of documents in the at least one other category; and

eliminating words determined to be unnecessary words from each of the word lists.

- 11. (Previously presented) The method according to Claim 10, further comprising generating a document classification catalog by eliminating the words determined to be unnecessary words from the word.
- 12. (Previously presented) The method according to Claim 11, wherein the document classification catalog is comprised of a plurality of vector spaces wherein each vector space represents at least one category.
- 13. (Previously presented) The method according to Claim 12, wherein a target classification document is defined by a document vector and wherein a distance is defined between the document vector and each of the plurality of vector spaces such that the distance indicates a degree of similarity between the target classification document and a category represented by the vector spaces.

14. (Currently amended) An unnecessary word determination method in a document automatic classification system, comprising the steps of:

acquiring information on words from a document set, classifying the words according to category, and storing the words in a storage device;

recognizing the number of occurrences within at least one other category of a word belonging to a given category on the basis of the acquired information;

determining an unnecessary word for a <u>first_category</u> on the basis of the <u>relative</u> number of occurrences of <u>a given the</u> word within at least one other category wherein a word is determined to be unnecessary <u>in the first category</u> in response to the word having a lesser greater number of occurrences than a given standard in the at least one other category, the given standard comprised of a predetermined threshold scaled by the number of documents in the at least one other category <u>and defined irrespective of the number of occurrences</u> of the word in the first category; and

generating a document classification catalog by eliminating words determined to be unnecessary words.

- 15. (Previously presented) The method according to Claim 14, further comprising storing said classification catalog into the storage device.
- 16. (Previously presented) The method according to Claim 15, further comprising the step of performing classification processing for classification target documents by using the classification catalog stored in said storage device.